



Monthly Drought Update September 9, 2014 San Luis Obispo County

Note: Information provided in this update varies by date.

CURRENT CONDITIONS

U.S. Drought Monitor Status:

The latest U.S. Drought Monitor report released August 26, 2014 indicates San Luis Obispo County remains at the **D4 – Exceptional Drought intensity rating**. Approximately 95% of the state is at a level D-2 Severe Drought or worse with more than 58% of the state in a D4 – Exceptional Drought rating.

San Luis Obispo County Precipitation Totals (in inches):

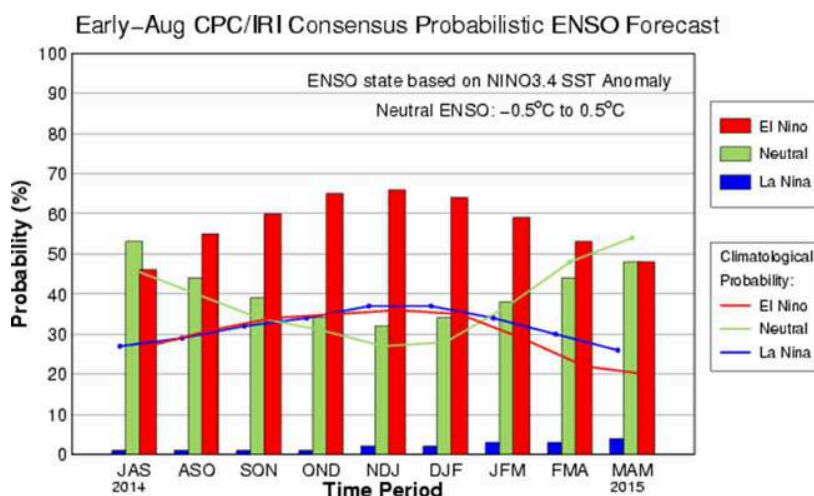
Community	Rainfall Total Received From Last Update (8/12/14 to 8/26/14)	Rainfall Last Year (7/1/13 to 8/26/14)	Avg. Annual Rainfall
Nipomo South (730)	0.00	4.65	16.00
Lopez Dam (737)	0.00	8.62	21.00
SLO Reservoir (749)	0.00	8.50	25.00
Los Osos Landfill (727)	0.00	6.81	20.00
Cambria (717)	0.00	7.01	22.00
Rocky Butte (703)	0.00	11.85	39.00
Santa Margarita (723)	0.00	8.62	26.00
Salinas Dam (719)	0.00	7.44	23.00
Atascadero (711)	0.00	5.67	18.00
Templeton (762)	0.00	6.22	14.70
Paso Robles (city)	0.03	6.13	14.33
Hog Canyon (709)	0.00	3.98	16.00

Source: www.slocountywater.org County of San Luis Obispo-City of Paso Robles Website

Near-term Outlook for Precipitation:

Monsoonal moisture has been present off and on in recent weeks, although the Central Coast did not receive measurable precipitation. Both southern and northern California received rain but these monsoonal conditions also resulted in a siege of large fires in northern California as a result of the lightning. Currently, the forecast remains dry for the Central Coast except for potential moist air from the remnants of Hurricane Marie.

ENSO prediction models indicate warming to El Niño levels in early fall, peaking at weak strength during winter 2014-15 and lasting into the first few months of 2015. The Farmer's Almanac is predicting a drier than normal winter for this area and below normal snowfall in the mountains.



Reservoir Levels (% of capacity):

Note: Historical averages calculated using data from the following time frame:

Nacimiento: 1959 – 2013; Lopez: 1994-2013; Salinas: 1987-2013; and Whale Rock: 1985-2013.

Reservoir	% of Capacity	Current Acre Feet Storage
Nacimiento	18%	67,425
Lopez	47%	23,378
Salinas	26%	6,286
Whale Rock	49%	19,161

Source: www.slocountywater.org County of San Luis Obispo (Updated 8/25/2014)

STATE WATER

Status: The Department of Water Resources (DWR) continue to deliver State Water “Carryover” water for 2014 and has increased its allocation for South of Delta Service Contractors from 0% to 5%. The Flood Control District is maximizing State Water deliveries to Zone 3 agencies. A recent algae bloom caused taste and odor issues. San Luis Reservoir is currently at 19% capacity.

Actions: The Public Works Department continues to coordinate with DWR regarding State Water Deliveries. The Public Works Department has released a 2015 projected delivery schedule and is planning a meeting with all sub-contractors to discuss the 2015 water delivery year.

VULNERABLE WATER SYSTEMS

There is only one new update regarding vulnerable water systems throughout the county since the August 12, 2014 report. On August 19, 2014, in accordance with the drought emergency water conservation regulations adopted by the State Water Resources Control Board, the Board of Supervisors adopted an ordinance regulating outdoor water use to Mondays and Thursdays within the applicable County Service Areas (10A-Cayucos, 16-Shandon, 23-Santa Margarita, and 12-Avila Valley).

County Service Areas (CSA's):**Santa Margarita (CSA 23)**

- Drought response level remains at ALERT status.
- Primary pumping is from shallow well No. 4. Deep well No. 3 is available for use if needed to supplement well No. 4.
- An emergency water supply project connecting Santa Margarita to Atascadero Mutual Water Company is being pursued through the Integrated Regional Water Management (IRWM) drought expedited implementation grant process. This project was approved in the suite of projects by the Board on June 17, 2014 and award announcement is anticipated in October.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community are being installed.

Shandon (CSA 16)

- Two wells currently provide all water to the Shandon community.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community are being installed.

Cayucos (CSA 10A)

- Supply is available from Whale Rock and one on - site well. Staff has given a presentation to the Advisory Committee and business groups regarding conserving this supply.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community are being installed.

Avila Valley (CSA 12)

- Adequate supply is available from Lopez and State water “carryover” water sources for this year.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community are being installed.

Chorro Valley Institutions (CMC, Animal Services, Sheriff, County Operations, Camp San Luis, Cuesta College, County Office of Education):

- 2014 State water carryover water is available and being provided.
- An interconnection between the existing Nacimiento Water Project pipeline and the existing Salinas pipeline is being pursued through the State's drought emergency funds. The board approved this project on June 17, 2014 to be included in the IRWM drought grant application.
- The existing distribution system is being evaluated to assure water losses are minimized.

Non-County Operated:

- **City of Morro Bay**
Status: Emergency inter-tie with Chorro Valley and desalination permit.
- **Cambria Community Services District**
Status: Emergency San Simeon Creek Brackish Water Supply Project-Started Construction.
- **San Simeon Community Services District**
Status: Proposed recycled water project part of June 17, 2014 IRWM drought application.
- **Heritage Ranch Community Services District**
Status: The Nacimiento River is the only available water source for the community of Heritage Ranch. The emergency inter-tie agreement between the Flood Control District and the CSD was part of June 17, 2014 drought application.
- **Rural Paso Robles residents**
Status: Continue to identify water trucking options and outreach efforts.

IMPACTS

Agricultural Impacts:

University of California Cooperative Extension (UCCE) Agricultural Producer Survey

The UCCE agricultural producer survey continues to seek input about the effects of the drought on the local agricultural industry. The monthly survey is sent to producers, local agricultural organizations and UCCE Farm Advisors representing a wide variety of crops and livestock. Participation from producers remained strong, providing a good picture of on-the-ground conditions and impacts from the drought.

The latest survey results indicate agricultural conditions continue to deteriorate due to lack of moisture. The input below is paraphrased from comments collected by the survey, but indicates an increasing level of concern. Most respondents noted no change in conditions in the past 30 days; with two respondents (avocados and rangeland) noting conditions are worse. For the first time, respondents noted yield losses associated with the drought. It is important to note that these are individual responses and may not necessarily broadly reflect agricultural impacts.

This month's survey asked about changes in water availability and changes in water quality. Livestock producers noted no changes to their water supply or water quality. Anecdotally, UCCE has heard reports of livestock producers hauling water for their remaining stock. One avocado respondent and one wine grape grower reported a range in crop loss from 10 to 50% related to water availability. Crop loss in avocados was related to an earlier than normal harvest of smaller than average fruit. Next year's crop will be reduced by impacts of increasing root zone salinity and stumping of trees.

Avocado growers are experiencing declining well levels, as are some grape growers. Avocado and grape growers also report increases in symptoms of salinity, with one respondent noting a measured increase in salinity levels in the root zone. This is supported by work in the Paso Robles areas in the drought years of 2006 and 2007 by Mark Battany with UCCE. Mark's work demonstrated a significant increase in root zone salinity over a single low rainfall winter. Cooperative Extension advisors are responding to an increasing number of contacts regarding salinity management in a broad range of crops.

Vegetable producers indicated that conditions are unchanged. Although water availability is not noted to have changed in the past 30 days, one vegetable grower estimated yield losses associated with lack of adequate irrigation water were in the range of 10-25%.

In response to a question regarding information to share with the Board of Supervisors, respondents noted:

- "For general information, there is such a high demand for well drillers that companies from out of State are now providing drilling services in our County on a temporary basis."
- "This year's avocado crop has been mostly harvested. Normally we harvest in September, so the fruit is smaller than it would have been, owing to 25% loss. Next year's crop is reduced by salinity, and stumping, which takes trees out of production for 3 years."
- The months of August, Sept, and October are the driest and water will be scarce. If we make it through that, and get some rain in Oct Nov, we could be ok."

- “We have not seen a [additional] decrease in irrigation water, but are experiencing increased difficulties in getting the available water to all of the crops due to the reduction in supply. This is contributing to the overall percentage of crop loss.”

Agricultural Assistance Programs

There have been no changes to agricultural assistance programs in the past 30 days, according to USDA Farm Services Agency staff.

Fire Danger:

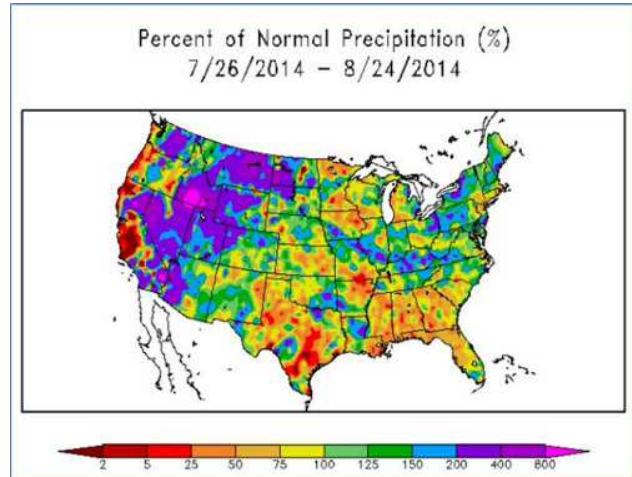
Fire Danger

To date, CAL FIRE has responded to **4,294 fires** across the State since January 1, burning **84,048 acres**. This year's fire activity is well above the year-to-date average of 3,311 wildfires and 67,492 acres burned. These statistics do not include fires on Federal jurisdiction.

In San Luis Obispo County, from January through July, there have been **97** wildfires, which burned **89** acres. Since 2007, averages for this same period are 110 wildfires burning 438 acres. Despite the county remaining dry, frequent cut-off low pressure systems and resulting cooler temperatures and higher relative humidities coupled with the absence of lightning and high wind events have helped moderate fire weather conditions through this period.

Live Fuel Moisture (LFM)

(LFM is the moisture content of live vegetation expressed as a percentage of the oven-dry weight.)



The normal downward summer trend continues and in most areas, LFM is at or near historical lows and critical levels. Many deciduous shrub species such as black sage and poison oak received enough moisture this spring to undergo a growth cycle. The new foliage produced during this growth cycle is now dead and has significantly increased the amount of dead flashy fuel ready to burn. The high rates of tree mortality continue throughout the county with dead trees obvious in most areas.

Dead Fuel Moisture

(The moisture content of dead organic fuels is another important component of the relative fire danger. As with LFM above, dead fuel moisture levels are a good indicator of how likely fuels are to ignite and how intensely they will burn. 100-hr fuel refers to vegetation between 1 and 3 inches in diameter and 1000-hr fuel is 3-6 inches. When the fuel moisture content is low, fires start easily and will spread rapidly.)

Currently, dead fuels are near or slightly below average but above historical lows.

Temperatures/Relative Humidity (RH)

Monsoonal influences increased relative humidity and cloud cover during many periods in July and August. Frequent, persistent low-pressure systems have also cooled temperatures for many days in August.

Energy Release Component (ERC)

(ERC is an index related to how hot a fire could burn. It is directly related to the 24-hour, potential worst case, total available energy (BTUs) at the head of a fire. The ERC can serve as a good characterization of fire season as it tracks seasonal fire danger trends well. ERC has low variability, and is the best fire danger component for indicating the effects of intermediate to long-term drying on fire behavior.)

Cooler weather coupled with increased moisture in the air has increased dead fuel moistures and reduced ERC values to near average levels.

Economic:

Drought-related job losses are continuing to increase across the state. The State's Labor & Workforce Development Agency requested that all local workforce boards provide real time information on the workforce impacts of the drought. As such, the Department of Social Services, on behalf of the San Luis Obispo County Workforce Investment Board (WIB), is collecting information from local employers to collect the number of layoffs, business closures, and Rapid Response actions occurring in our local area. The WIB is conducting outreach to chambers of commerce and other business services agencies for assistance in outreach to businesses and employers regarding the drought survey. Though the WIB is hearing that there are impacts, the county does not have any "reportable" impacts due to the State's requirements for reporting (i.e. specific business name, address, etc.).

STATE & FEDERAL KEY ACTION ITEMS FROM LAST MONTH

Local Water Agencies Report Urban Water Use

As of Thursday, August 21, close to 75% of California Urban Water Agencies had reported on their water use, which is required under emergency regulations adopted by the State Water Board in July. Information will be provided publicly on the amount of water conservation achieved by region and water supplier. This information will help the Water Board decide whether additional actions are necessary to expand water conservation during the drought.

Water Saving Tips Promoted Across the State

The state's water conservation website, SaveOurWater.com, is promoting the "Don't Waste Summer" campaign. This campaign provides a new conservation tip each day for the 100 days of summer. Supporters can sign up for daily email tips, and share Save Our Water's Twitter and Facebook feeds for this public awareness campaign.

Open Burn Ban in Affect across the State

Open burning continues to be prohibited on 31 million acres of land across the state due to the burn ban that CAL FIRE has directed through the coordination of its unit chiefs. This ban on open burning in state responsibility areas (outside of cities and towns) reduces wildfire danger amidst extremely dry conditions.

Economic Loss Loans

Cal OES continues to remind local agencies that the U.S. SBA has economic loss loans available to non-agriculture businesses that have lost business and revenue due to the drought. County OES is sending out a reminder news release and social media messaging locally and posting the information on their web site.

COUNTY DROUGHT TASK FORCE KEY ACTION ITEMS FROM LAST MONTH

County Office of Emergency Services:

San Luis Obispo County OES continues to coordinate weekly with Cal OES to provide updates on the drought situation, respond to specific information requests to Cal OES, and coordinate local emergency needs. In addition, County OES is continuing to reach out directly to local special districts water purveyors and cities to gather additional cost information related to the drought. County OES is gathering the costs to all local public agencies throughout county in order to send the information to Cal OES. Cal OES in turn is gathering information from all counties and if a threshold is reached that may qualify for federal disaster funding a request may be made to the President to request a federal drought disaster declaration.

Emergency Actions:

Cambria Community Services District (CSD) notified County OES that a monitoring well had dropped below the three foot level. Due to permitting issues, once the well drops below the three foot level the CSD is required to stop using a well downstream that is currently being used for community water supply. The CSD submitted a petition to the State Water Resources Control Board requesting a waiver to be allowed to drop the monitoring well level to two feet. County OES contacted Cal OES requesting assistance with getting the waiver request approved as soon as possible. County OES sent a request to Cal OES, which was sent up to Cal OES headquarters. Cal OES in turn worked with two State agencies to help with expediting the request. A successful cooperative effort by all involved resulted in the issue of the emergency permit on August 21 by the State Water Resources Control Board. The emergency permit

will help to ensure Cambria has a community water supply as it continues to work on development of its temporary Emergency Water Project.

County Facilities Usage & Conservation Actions:

General Services Agency has taken the following actions:

- Fixture Replacement: To date, a total of 35 buildings have been retrofitted with low-flow fixtures, saving an estimated 3,000 gallons per week.
- Water Audit: Water audit site visit was conducted in July with focus on water efficiency opportunities County facilities, parks, and golf. The site visit estimated a rough savings of 15 acre-feet by replacing fixtures and performing retrofits at County Operations Center facilities.
- Energy and Water Manager Professional Services Contract: Proposals for Energy and Water Manager professional services contract were received, negotiations are in progress, and it is now estimated that a contract will be awarded in October.
- Dairy Creek Golf Course: Dairy Creek Golf Course receives treated effluent water from the California Men's Colony (CMC) for irrigation. Staff is coordinating a tour of the water treatment plan at the CMC to better understand the capabilities and limitations of the system.
- Airport: As reported in the July 15 update, County Airport fire hydrants must be flushed periodically to maintain safe water for drinking due to chlorine levels. In order to reduce water usage the airport is evaluating a vendor proposal to scour water distribution lines with an ice slurry to remove build-up inside piping and improve chlorine levels.

Drought Contingency Planning:

The Public Health Department, the Public Works Department, and CAL FIRE/County Fire continue to develop plans to ensure there is adequate supply of water for firefighting and domestic water use in the event that a community does not have enough water. A request to complete a drought survey was sent to 150 small public water systems (199 service connections or fewer) regulated by Public Health. To date, approximately 85 small public water systems have completed the survey. The result of each survey received has been categorized into three categories; Watch, Vulnerable, and Critical. The information has been placed into a GIS mapping layer for contingency planning. Public Health is continuing to update the water purveyor GIS layer. A CAL FIRE Viewer has been created to allow the Fire Department to see updated water purveyor information immediately.

County Public Outreach Actions:

The Public Works Department continues to work with agencies affected by the drought and provide educational presentations to interested parties. Conservation mailers have been sent to retail customers.

Information regarding Drought Assistance for Rural Homeowners has been placed on the County Drought Conditions and Water Conservation webpage. Rural Development, an agency of the United States Department of Agriculture (USDA), delivers a number of programs to help improve the quality of life in rural communities throughout the nation. These programs may also help rural communities, businesses and individuals impacted by California's ongoing drought conditions. For additional resources and information on applying for any of these programs, please visit <http://www.rurdev.usda.gov/ca> or the County Drought Conditions and Water Conservation webpage at http://www.slocounty.ca.gov/admin/Drought_Update.htm.

In an effort to raise awareness about water supply issues and communicate the call for a 20% voluntary reduction in water usage, the County continues to examine multiple channels of communication for water conservation outreach efforts.

DROUGHT RELATED WEBSITES FOR MORE INFORMATION

State's Water Conservation Campaign; Save our Water (www.saveourh2o.org)

California's Drought Information Clearinghouse; Drought.CA.Gov (ca.gov/drought/)

California Department of Food and Agriculture; Drought information (www.cdfa.ca.gov/drought/)

California Department of Water Resources; Current Water Conditions (www.water.ca.gov/waterconditions/drought/)

California State Water Resources Control Board; Water Rights, Drought Info and Actions

(www.swrcb.ca.gov/waterrights/water_issues/programs/drought/index.shtml)

California Department of Public Health; Drinking Water CDPH Drinking Water Program (www.cdph.ca.gov/programs/pages/dwp.aspx)

USDA Disaster and Drought Assistance Information; USDA Programs

(usda.gov/wps/portal/usda/usdahome?navid=DISASTER_ASSISTANCE)

UC Cooperative Extension Drought Information Resources; Drought Information Resources; cesanluisobispo.ucanr.edu/Drought_Information/